EPA/NSF/USDA PARTNERSHIP FOR ENVIRONMENTAL RESEARCH

1999 Water and Watersheds Research

Interagency Announcement of Opportunity

OPENING DATE: January 25, 1999
CLOSING DATE: May 28, 1999

1.0 INTRODUCTION

The Environmental Protection Agency (EPA), the National Science Foundation (NSF), and the U.S. Department of Agriculture (USDA) announce their intent to support a special awards competition opening in Fiscal Year (FY) 1999. This competition has been developed based on a Memorandum of Understanding between EPA and NSF in collaboration with USDA, which establishes a partnership for the support and merit review of fundamental, extramural environmental research.

NSF, EPA, and USDA are continuing their cooperation in this extramural grants program in FY 1999. This is the fifth year of the joint awards competition between NSF and EPA, and the second year with USDA. Information on the FY 1995 through 1998 competitions may be found on the Internet through: http://www.nsf.gov/home/crssprgm/start.htm or http://www.epa.gov/ncerqa.

This year's EPA/NSF Partnership competitions will include the following four research areas:

Water and Watersheds (with USDA)
Technology for a Sustainable Environment
Decision-making and Valuation for Environmental Policy
Environmental Statistics

This announcement solicits grant applications for the Water and Watersheds competition. EPA, NSF, and USDA anticipate awarding approximately $7 million, with an award range of $100,000 to $300,000 per award per year and an approximate duration of 2 to 3 years. **Total requested funding may not exceed $900,000. Proposals that exceed this amount will be returned without review.**

Awards made through this competition are dependent upon responsiveness of the proposals to the announcement, the quality of the proposed research, and the availability of funds.

Proposals in response to this announcement must be received by May 28, 1999. **It is anticipated that awards will be made in early Fiscal Year 2000**. Awards resulting from this competition may be made by EPA, NSF, or USDA at the option of the agencies, not the grantee.

Further information, if needed, may be obtained from the EPA, NSF, or USDA officials indicated below. E-mail inquiries are the preferred communication method.

General Information on the Inter-Agency Competition:

Dr. Robert E. Menzer
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menzer.robert@epa.gov
voice (202) 564-6849

Dr. Robert Wellek
NSF Directorate for Engineering
rwellek@nsf.gov
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Information on Water and Watersheds:

Mr. Brian Sidlauskas
sidlauskas.brian@epa.gov
voice (202) 564-5181

Dr. Bernard Bauer
bbauer@nsf.gov
voice (703) 306-1754

Dr. Maurice Horton
mhorton@reeusda.gov
voice (202) 401-5971

2.0 WATER AND WATERSHEDS

2.1 Introduction

The goal of the Water and Watersheds competition is to develop an improved understanding of the natural and anthropogenic processes that govern the quantity, quality, and availability of water resources in natural and human-dominated systems. This program also seeks an improved understanding of the structure, function, and dynamics of the coupled terrestrial and aquatic ecosystems that comprise watersheds.

Human activities have made access to clean water and healthy aquatic ecosystems paramount issues in the U.S. and throughout the world. The integrated nature of the terrestrial, aquatic, atmospheric and subsurface processes within watersheds provides a strong rationale for supporting systems-level science and engineering research. For the purposes of this announcement, a systems approach is one that emphasizes the interactions among components of the watershed system (human, environmental, technological) and considers the factors that could impact the system if any component were to change. Such research is needed for decision-making that balances restoration, long-term protection, and informed management of water resources.

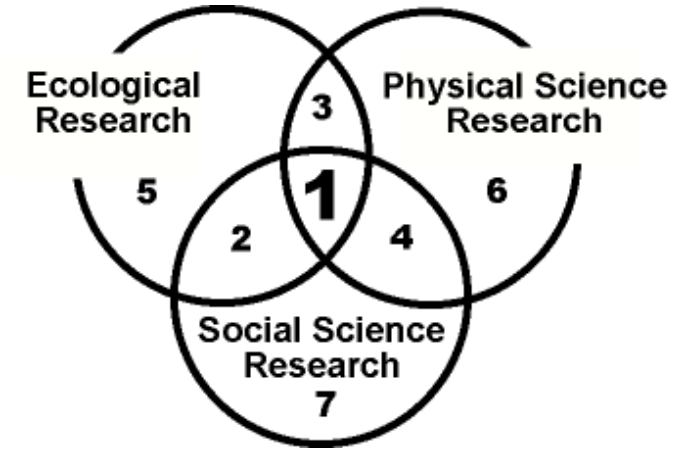
We must continue to assess the multiple stressors and risks faced by the nation's aquatic resources, and evaluate the natural capital represented in water and watersheds. Therefore, we need a better knowledge base regarding how humans and their infrastructure interact within watershed systems. Research on water and watersheds should be integrated with the needs of decision-makers in order to identify areas where improved understanding is needed and to develop models needed for management of watersheds.

2.2 Description

This competition emphasizes well-integrated, interdisciplinary research on important scientific, engineering, and social principles for understanding, protecting, and restoring watershed resources. A systems approach and general applicability of the research to watershed-scale questions are required in each proposal. Investigators are encouraged to bring together new approaches to address watershed-scale issues and draw widely from expertise in different disciplines. **The competition will fund only proposals that take an integrated systems approach as described in this announcement.**

The most competitive proposals will be those that help integrate multiple goals of EPA, NSF, and USDA programs, and address questions that are comprehensive in scale and transferable in scope (see section 2.4). The degree to which disciplinary components and/or their sub-components are integrated in a systems approach will be a review criterion. To assist in understanding this criterion, abstracts from the 1995 - 1998 awards may be reviewed by accessing http://www.epa.gov/ncerqa.

The following Venn diagram illustrates the conceptual approach:



The illustrated multidisciplinary areas may include the following. These are not necessarily exclusive and are not presented in priority order:

- Ecological Research: Ecological research that addresses diversity and vitality of aquatic biota and ecological processes and/or relationships among populations and communities of organisms. Statistical, mathematical, and bio- or environmental-engineering research on these topics is also included.

- Physical Science Research: Hydrologic, biogeochemical, chemical, and engineering research that addresses the processes and mechanisms which govern the interactions of nutrients, organic matter, metals, toxic materials, and organisms within and among surface waters, ground waters, sediments, soils, and the atmosphere. This area includes mathematical and statistical modeling and engineering research on these processes.

- Social Science Research: Social science research that develops a systemic perspective on, and predictive understanding of, the impacts and spatial aspects of human behavior/attitudes/perceptions/cognition**,** and social, geographic and economic systems on water resources and watersheds. This area also includes statistical research with a social emphasis. Note that simply demonstrating applicability of the research to social, economic or management issues is not adequate for the purposes of this competition.

Some examples of interest include, but are not limited to:

1. Research on total maximum daily loads (TMDLs). Under the Clean Water Act, States have the authority to impose TMDLs on the amounts of point and non-point sources of pollution that impair the quality of rivers, lakes, and estuaries. This announcement of opportunity solicits research proposals that will improve our understanding of watershed

processes relevant to TMDLs and of analytical methods for determining how changes in the management of upland and riparian areas affect the quality of water bodies. Watershed processes of interest include those that affect streamflow, erosion, sediment transport and routing, stream temperature, stream habitat, inputs of nutrients and toxics, and the relation of these processes to aquatic ecosystem health. Analytical methods of interest include distributed process models and process-related indicators of watershed condition that can be derived from remotely sensed imagery. In addition, research is needed to define disturbance thresholds, understand the cumulative effects of multiple stressors at different scales, and quantitatively define the uncertainty associated with interpretation of model simulations or inferences drawn from indicators. Please refer to the TMDL web site at http://www.epa.gov/owow/tmdl/.

2. Research on watersheds that includes agricultural activities. Organic wastes from animal and municipal sources, fertilizers and pesticides from agricultural sources, and sediments from all sources provide a challenge in developing strategies for pollution prevention and/or remediation. Research is needed that addresses the processes and mechanisms that govern the physical and social interactions within these complex ecosystems.

3. Research on the interactions between urbanization and watershed processes. Research is needed on spatial and temporal scaling; contaminant transport, wet weather flows and runoff, including non-agricultural pesticide runoff, and infiltration from urban/suburban areas; and interfaces between terrestrial and aquatic ecosystems.

4. Research on rehabilitation of damaged or degraded watersheds. Examples include the ecosystem and societal processes that must be understood before undertaking rehabilitation efforts; and the objective criteria needed to determine if the rehabilitation effort is effective.

2.3 Review Criteria

In addition to the general review criteria listed in Sections 5.0 and 6.4 of this announcement, Water and Watersheds proposals will also be evaluated on the degree to which the research components are integrated in a systems approach. The likelihood that the proposed research will effectively address questions that are comprehensive in scale and transferable in scope will also be a consideration. Innovative statistical and mathematical approaches are encouraged.

2.4 Additional Considerations

Stakeholder Involvement

The goals of community-based environmental protection are to enhance the community's understanding of environmental issues, build the capacity for communities to address these problems, develop tools, information and data to assist communities in addressing environmental problems, and ensure communities have access to the most credible available scientific information. For this competition, the most competitive proposals will demonstrate involvement

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of local governments and/or community groups from inception (developing the research questions and designing the project) to completion of the research project (analyzing and disseminating the results of the research). Please note that stakeholder involvement does not constitute social science research as defined herein.

Integration of Education

It is expected that proposals will include plans for meaningful integration of research with education and outreach. This might include involvement of local school groups in field sampling, lab analyses, or other project activities.

Management Strategy

Each proposal must also provide a separate Management Strategy section of no more than 2 pages. The Management Strategy must include plans for coordinating the activities of the collaborators**,** and describe the responsibilities of each collaborator, including a designated team leader.

Mission Considerations

EPA's Office of Research and Development's (ORD) Ecological Research Strategy (June 1998) states that the goal of the Ecological Research Program is to 'provide the scientific understanding required to measure, model, maintain, and/or restore, at multiple scales, the integrity and sustainability of ecosystems now and in the future.' Research is organized into four areas: (1) ecosystem monitoring, (2) ecological processes and modeling, (3) ecological risk assessment, and (4) ecological risk management and restoration. This solicitation complements the ongoing research program in EPA Laboratories and contributes to all four research areas. The ORD Ecological Research Strategy is available at http://www.epa.gov/ORD/WebPubs/final.

The NSF's continuing mission is set out explicitly in the preamble to the National Science Foundation Act of 1950 (Public Law 810507):

> To promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense; and for other purposes.

The Act authorizes and directs NSF to initiate and support:

- basic scientific research and research fundamental to the engineering process,
- programs to strengthen scientific and engineering research potential,
- science and engineering education programs at all levels and in all the various fields of science and engineering, and
- an information base for science and engineering appropriate for development of national and international policy.

NSF expects the following as outcomes from its investments, taken in the aggregate and observed over time.

- Discoveries at and across the frontier of science and engineering;
- Connections between discoveries and their use in service to society;
- A diverse, globally-oriented workforce of scientists and engineers;
- Improved achievement in mathematics and science skills needed by all Americans; and
- Timely and relevant information on the national and international science and engineering enterprise.

The Cooperative State Research, Education, and Extension Service (CSREES) within USDA has strategic plan goals that focus on environmental research: (1) to generate the knowledge base necessary to address current and potential agricultural and environmental issues through funding of high priority, high quality fundamental and applied research, (2) to strengthen the nation's scientific, educational, managerial, and leadership capability in food, agricultural, and related environmental and human sciences to meet the current and future needs of agriculture, people, communities, and the nation in a global context, and (3) to promote and strengthen partnerships among USDA, the land-grant system, other federal agencies, and other public and private cooperators and collaborators. Research funded by USDA should contribute to one or more of these goals.

The Strategic Plans for each Agency can be accessed from their home pages:
www.epa.gov
www.nsf.gov
www.usda.gov

Projects that will NOT be considered

Projects that do **not** explicitly integrate ecological, physical, and social science research (Area 1 on the Venn diagram).

Projects which focus on development of best management practices, industrial accidents, spills, routine monitoring projects, routine application of well-established models, site-specific remediation, drinking water treatment and distribution, point-source waste-water treatment and sanitary sewerage infrastructure, and research on human health effects.

3.0 ELIGIBILITY

Academic and not-for-profit institutions located in the U.S., and state or local governments are eligible for funding by EPA, NSF, and USDA. Profit-making firms and federal agencies are not eligible for funding by EPA or NSF. Personnel in profit-making firms may participate as non-funded co-investigators or through subcontracts with the awardee institution. Profit-making firms

and federal agencies are eligible to apply for funding only from the USDA portion (about $1 M) of total funds available.

Federal employees may cooperate or collaborate with eligible applicants within the limits imposed by applicable legislation and regulations. However, federal agencies, national laboratories funded by federal agencies (FFRDCs), and federal employees are not eligible to submit applications to this program and may not serve in a principal leadership role on a grant, except for the USDA portion. Under exceptional circumstances the principal investigator's institution may subcontract to a federal agency or FFRDC to purchase unique supplies or services unavailable in the private sector. Examples are purchase of satellite data, census data tapes, chemical reference standards, unique analyses or instrumentation not available elsewhere, etc. A written justification for such federal involvement must be included in the application, along with an assurance from the federal agency that commits it to supply the specified service. Federal employees may not receive salaries or in other ways augment their agency's appropriations through grants made by this program. Potential applicants who are uncertain of their eligibility should contact Dr. Robert E. Menzer (listed in Section 1.0).

EPA, NSF, and USDA welcome applications on behalf of all qualified scientists, engineers, and other professionals and strongly encourage women, minorities, and persons with disabilities to compete fully in any of the programs described in this announcement.

In accordance with Federal statutes and regulations and EPA, NSF, and USDA policies, no person on grounds of race, color, age, sex, national origin, or disability shall be excluded from participation in, denied the benefits of, or be subjected to discrimination under any program or activity receiving financial assistance from EPA, NSF, and USDA.

4.0 INSTRUCTIONS FOR APPLICATION SUBMISSION

4.1 Sorting Codes

In order to facilitate proper assignment and review of applications, each applicant is asked to identify the topic area in which their application is to be considered. **It is the responsibility of the applicant to correctly identify the proper sorting code.** Failure to do so will result in an inappropriate peer review assignment. At various places within the application, applicants will be asked to identify this topic area by using the appropriate Sorting Code. The Sorting Code for *Water and Watersheds* is **99-STAR-L1**.

4.2 The Application

The initial application is made through the submission of the application materials described below. It is essential that the application contain all the information requested and be submitted in the formats described. If an applicant is chosen for award (i.e., after external peer review and internal review), additional documentation and forms may be requested by the agency that will manage the award to satisfy their requirements. The application contains the following:

A. **Standard Form 424**: The applicant must complete Standard Form 424 (see attached form and instructions). This form will act as a cover sheet for the application and should be its first page. Instructions for completion of the SF424 are included with the form. The form must contain the original signature of an authorized representative of the applying institution. Please note that both the Principal Investigator and an administrative contact should be identified in Section 5 of the SF424.

B. **Key Contacts**: The applicant must complete the Key Contacts Form (attached) as the second page of the submitted application.

C. **Abstract**: The abstract is a very important document. Prior to attending peer review panel meetings, some of the panelists may read only the abstract. Therefore, it is critical that the abstract accurately describe the research being proposed and convey all the essential elements of the research. Also, in the event of an award, the abstracts will form the basis for an annual report of awards made under this program. The abstract should include the following information:

1. **Sorting Code**: Use **99-STAR-L1**

2. **Title:** Use the exact title as it appears in the rest of the application.

3. **Investigators:** Start with the Principal Investigator. Also list the names and affiliations of each co-investigator who will significantly contribute to the project.

4. **Institution**: List the name and city/state of each participating university or other applicant institution, in the same order as the list of investigators.

5. **Project Period**: Provide the proposed project dates.

6. **Project Cost**: Provide the total request for the entire project period.

7. **Project Summary:** This should summarize: (a) the **objectives** of the study (including any hypotheses that will be tested), (b) the experimental **approach** to be used (which should give an accurate description of the project as described in the proposal), (c) the **expected results** of the project and how it addresses the research needs identified in the solicitation, including the estimated improvement in risk assessment or risk management that will result from successful completion of the work proposed.

8. **Supplemental Keywords:** A list of suggested keywords is provided for your use. Do not duplicate terms already used in the text of the abstract.

The abstract must not exceed one 8.5x11 inch page of single spaced standard 12 point type with 1 inch margins (see attached format).

D. **Project Description**: This description must not exceed fifteen (15) consecutively numbered (center bottom), 8.5x11 inch pages of single spaced standard 12 point type with 1 inch margins, exclusive of the references cited and the results of prior Federal support. The description must provide the following information:

1. **Objectives**: List objectives of the proposed research and/or the hypotheses being tested during the project. Include a statement on the context of the proposed research in relation to other environmental research in the particular area of work; this statement should also be synopsized in the objectives section of the abstract.

2. **Approach**: Outline the methods, approaches, and techniques that you intend to employ in meeting the objective stated above.

3. **Expected Results or Benefits**: Describe the results you expect to achieve during the project and the benefits as they relate to the topics in the announcement under which the proposal was submitted.

4. **General Project Information**: Discuss other information relevant to the potential success of the project. This should include facilities, personnel, project schedules, proposed management, interactions with other institutions, etc.

5. **Important Attachments**: Appendices or other information may be included but must remain within the 15-page limit. References and Results of Prior Federal Support are in addition to the 15-page limit.

E. **Results from Prior Federal Support**: Provide information on the results of research conducted with prior or current Federal support. This must be limited to five pages but is in addition to the 15-page limit. This section should include information on any prior Federal awards closely related to the application (i.e., not limited to EPA or NSF awards).

F. **Resumes**: The resumes of all principal investigators and important co-workers should be presented using NCERQA Form 5, attached. Resumes must not exceed two consecutively numbered (bottom center), 8.5x11 inch pages of single-spaced standard 12 point type with 1 inch margins.

G. **Current and Pending Support**: The applicant must identify any current and pending financial resources that are intended to support research. This should be done by Completing NSF Form 1239 (see attached) for each investigator and other senior personnel involved in the proposal. Failure to provide this information may delay consideration of your proposal. Updates of this information may be requested during the evaluation process.

H. **Budget**: A detailed, itemized budget for each year of the proposed project must be included. This budget must utilize the format shown in the attachment (do not try to squeeze your complete budget on the "form" shown as an example).

I. **Budget Justification**: This section should describe the basis for calculating the personnel, fringe benefits, travel, equipment, supplies, contractual support, and other costs identified in the itemized budget. This should also include an explanation of how the indirect costs and charges were calculated (note USDA restrictions outlined in Section 4.4). This justification should not exceed two consecutively numbered (bottom center), 8.5x11 inch pages of single-spaced standard 12 point type with 1 inch margins.

J. **Management Plan**: Each proposal must also provide a separate Management Plan section of no more than 2 pages. The Management Plan must include plans for coordinating the activities of the collaborators**,** and describe the responsibilities of each collaborator, including a designated team leader. These 2 pages do not count against the 15-page project-description limit.

K. **Quality Assurance Narrative Statement**: For any project involving data collection or processing, conducting surveys, environmental measurements, and/or modeling, provide a statement on how quality products will be assured. This statement should not exceed two consecutively numbered, 8.5x11 inch pages of single spaced standard 12-point type with 1-inch margins. This is in addition to the 15 pages permitted for the Project Description. The Quality Assurance Narrative Statement should, for each item listed below, either present the required information or provide a justification as to why the item does not apply to the proposed research. For awards that involve environmentally related measurements or data generation, a quality system that complies with the requirements of ANSI/ASQC E4, "Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs," must be in place.

1. The activities to be performed or hypothesis to be tested (reference may be made to the specific page and paragraph number in the application where this information may be found); criteria for determining the acceptability of data quality in terms of precision, accuracy, representativeness, completeness, comparability.

2. The study design including sample type and location requirements and any statistical analyses that were used to estimate the types and numbers of samples required for physical samples or similar information for studies using survey and interview techniques.

3. The procedures for the handling and custody of samples, including sample identification, preservation, transportation, and storage.

4. The methods that will be used to analyze samples collected, including a description of the sampling and/or analytical instruments required.

5. The procedures that will be used in the calibration and performance evaluation of the sampling and analytical methods used during the project.

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6. The procedures for data reduction and reporting, including a description of statistical analyses to be used and of any computer models to be designed or utilized with associated verification and validation techniques.

7. The intended use of the data as they relate to the study objectives or hypotheses.

8. The quantitative and or qualitative procedures that will be used to evaluate the success of the project.

9. Any plans for peer or other reviews of the study design or analytical methods prior to data collection.

ANSI/ASQC E4, "Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs" is available for purchase from the American Society for Quality Control, phone 1-800-248-1946, item T55. Only in exceptional circumstances should it be necessary to consult this document. There are EPA requirements (R-series) and guidance (G-series) documents available for potential applicants which address in detail how to comply with ANSI/ASQC E4. These may be found on the Internet at http://es.epa.gov/ncerqa/qa/qa_docs.html. R-5, "EPA Requirements for Quality Assurance Project Plans," and G-4, "Guidance for the Data Quality Objectives Process," are particularly pertinent to this RFA's QA requirements.

L. **Postcard**: The application must include a blank, self-addressed, stamped post card. This will be returned to the applicant to signify that the application has been received.

4.3 How to Apply

The original and ten (10) copies of the fully developed application and five (5) additional copies of the abstract (15 in all), must be received by NCERQA no later than **4:00 P.M. EDT** on the closing date for ***Water and Watersheds,* May 28, 1999.**

The application and abstract must be prepared in accordance with these instructions. Informal, incomplete, or unsigned proposals will not be considered. The application should not be bound or stapled in any way. The original and copies of the application should be secured with paper or binder clips. Completed applications should be sent via regular mail to:

U.S. Environmental Protection Agency
Peer Review Division (8703R)
Sorting Code: 99-STAR-L1
401 M Street, SW
Washington DC 20460

For express mail or courier-delivered applications, the following address must be used:

U. S. Environmental Protection Agency
Peer Review Division (8703R)
Sorting Code: 99-STAR-L1
1300 Pennsylvania Avenue, NW
Room B-10105
Washington, DC 20004

Phone: (202) 564-6939 (for express mail applications)

4.4 Guidelines, Limitations, and Additional Requirements

Applicants that are funded by USDA must agree to the legislated indirect cost rate of 14%.

Subcontracts for research to be conducted under the grant which exceed 40% of the total direct cost of the grant for each year in which the subcontract is awarded must be especially well justified.

Researchers may be invited to participate in an annual All-Investigators Meeting with EPA, NSF, and USDA scientists and other grantees to report on research activities and to discuss areas of mutual interest. Travel funds should be budgeted to accommodate that eventuality.

5.0 REVIEW AND SELECTION

5.1 Review Procedures

Applications will be reviewed by an appropriate technical peer review group. This review is designed to evaluate each proposal according to its technical merit. Each review group is composed of scientists, engineers, and/or social scientists who are experts in their respective disciplines. The reviewers use the following criteria to guide them in their reviews:

1. The originality and creativity of the proposed research, the potential contribution the proposed research could make to advance scientific knowledge in the environmental area, the appropriateness and adequacy of the research methods proposed, and the appropriateness and adequacy of the Quality Assurance Narrative Statement.

2. The qualifications of the principal investigator(s) and other staff, including knowledge of pertinent literature, experience, and publication records as well as the likelihood that the proposed research will be successfully completed.

3. The availability and/or adequacy of the facilities and equipment proposed for the project.

4. The responsiveness of the proposal to the research needs set forth in this solicitation.

5. Although budget information is not used by the reviewers as the basis for their evaluation of scientific merit, the reviewers are asked to provide their input on the appropriateness and/or adequacy of the proposed budget and its implications on the potential success of the proposed research. Input on requested equipment is of particular interest.

Grants are selected on the basis of technical merit, relevancy to the research priorities outlined, program balance, and budget. In addition to the above criteria, other factors that will be taken into consideration by NSF in the evaluation and award process are described in section 6.4.

Copies of the evaluations by the technical reviewers will be provided to each applicant. Funding decisions are the sole responsibility of EPA, NSF and USDA.

5.2 Proprietary Information

By submitting an application in response to this solicitation, the applicant grants EPA, NSF, and USDA permission to share the application with technical reviewers both within and outside the Agencies. Applications containing proprietary or other types of confidential information will not be reviewed.

6.0 GRANT ADMINISTRATION

Upon conclusion of the review process, meritorious applications may be recommended for funding by EPA, NSF, or USDA at the option of the agencies, not the applicant. Subsequent grant administration procedures will be in accordance with the individual policies of the awarding agency.

6.1 EPA Grant Administration

The funding mechanism for all awards issued under this solicitation will consist of grants from EPA and depends on the availability of funds. In accordance with Public Law 95-224, the primary purpose of a grant is to accomplish a public purpose of support or stimulation authorized by Federal statute rather than acquisition for the direct benefit of the Agency. In issuing a grant agreement, EPA anticipates that there will be no substantial EPA involvement in the design, implementation, or conduct of the research funded by the grant. However, EPA will monitor research progress, based in part on annual reports provided by awardees.

6.2 NSF Grant Administration

NSF grants awarded as a result of this announcement will be administered in accordance with the terms and conditions of the most recent NSF GC-1, "Grant General Conditions," or the FDP-III, "Federal Demonstration Partnership General Terms and Conditions," depending on the grantee organization.

More comprehensive information on the administration of NSF grants is contained in the Grant Policy Manual (NSF 95-26, July 1995), for sale through the Superintendent of Documents, Government Printing Office (GPO), Washington, D.C. 20402. The telephone number at GPO is (202) 512-1800 for subscription information. The manual is also available on the Internet at: www.nsf.gov/cgi.bin/getpub?nsf9526

Organizations applying to NSF for the first time, or which have not received an NSF award within the preceding two years, should refer to the NSF Grant Policy Manual, Section 500, for instructions on specific information that may be requested by NSF. First time NSF awardees will be required to submit organizational, management, and financial information, including a certification of civil rights compliance, before a grant can be made. One copy of the Grant Policy Manual will be provided free of charge to new grantees. Upon completion of an NSF project, a Final Project Report will have to be filed electronically (using FastLane). Applicants should familiarize themselves with the requirements so that appropriate tracking mechanisms are included in the research plan to ensure that complete information will be available at the conclusion of the project.

NSF activities described in this publication are in the following categories in the Catalog of Federal Domestic Assistance (CFDA): 47.041 Engineering; 47.049 Mathematical and Physical Sciences; 47.050 Geosciences; 47.074 Biological Sciences; 47.075 Social, Behavioral and Economic Sciences.

6.3 USDA Grant Administration

USDA award authority for this program is contained in section 2(b) of the Act of August 4, 1965, as amended (7U.S.C.450i(b)). Under this program, subject to the availability of funds, the Secretary may award competitive research grants, for periods not to exceed five years, for the support of the research projects to further programs of the Department of Agriculture (USDA). Proposals may be submitted by any state agricultural station, college, private organization, corporation, or individual. Proposals from scientists at non-United States organizations will not be considered for support. Funds available to pay indirect costs on research grants awarded competitively by CSREES may not exceed 14 per cent of the total Federal funds provided under each award. Entities are encouraged to purchase only American equipment or products.

6.4 NSF Applicant Information

NSF will consider in its evaluation and award process the broader impacts of the proposed research activity, in addition to the criteria stated in section 5.1. Questions to be considered are:

What is the intellectual merit of the proposed activity?

> How important is the proposed activity to advancing knowledge and understanding within its own field or across different fields? How well qualified is the proposer (individual or team) to conduct the project? (If appropriate, the reviewer will comment on the quality of prior

work.) To what extent does the proposed activity suggest and explore creative and original concepts? How well conceived and organized is the proposed activity? Is there sufficient access to resources?

What are the broader impacts of the proposed activity?

How well does the activity advance discovery and understanding while promoting teaching, training, and learning? How well does the proposed activity broaden the participation of underrepresented groups (e.g., gender, ethnicity, disability, geographic, etc.)? To what extent will it enhance the infrastructure for research and education, such as facilities, instrumentation, networks, and partnerships? Will the results be disseminated broadly to enhance scientific and technological understanding? What may be the benefits of the proposed activity to society?

In addition to the two evaluation criteria stated above, NSF will consider the following factors in making awards:

Integration of Research and Education

One of the principal strategies in support of NSF's goals is to foster integration of research and education through the programs, projects, and activities it supports at academic and research institutions. These institutions provide abundant opportunities where individuals may concurrently assume responsibilities as researchers, educators, and students and where all can engage in joint efforts that infuse education with the excitement of discovery and enrich research through the diversity of learner perspectives. Principal Investigators should address this issue in their proposal to provide reviewers with the information necessary to respond fully to both NSF merit review criteria. NSF staff will give it careful consideration in making funding decisions.

Integrating Diversity into NSF Programs, Projects, and Activities

Broadening opportunities and enabling the participation of all citizens - women and men, underrepresented minorities, and persons with disabilities - is essential to the health and vitality of science and engineering. NSF is committed to this principle of diversity and deems it central to the programs, projects, and activities it considers and supports. Principal Investigators should address this issue in their proposal to provide reviewers with the information necessary to respond fully to both NSF merit review criteria. NSF staff will give it careful consideration in making funding decisions.

Facilitation Awards for Scientists and Engineers with Disabilities (FASED) provide funding for special assistance or equipment to enable persons with disabilities (investigators and other staff, including student research assistants) to work on NSF-supported projects. See the program announcement or contact the program coordinator at (703) 306-1636.

The National Science Foundation has Telephonic Device for the Deaf (TDD) and Federal Information Relay Service (FIRS) capabilities that enable individuals with hearing impairments to communicate with the Foundation regarding NSF programs, employment, or general information. TDD may be accessed at (703) 306-0090 or through FIRS on 1-800-877-8339.

PRIVACY ACT AND PUBLIC BURDEN STATEMENTS

The information requested on proposal forms and project reports is solicited under the authority of the National Science Foundation Act of 1950, as amended. The information on proposal forms will be used in connection with the selection of qualified proposals; project reports submitted by awardees will be used for program evaluation and reporting within the Executive Branch and to Congress. The information requested may be disclosed to qualified reviewers and staff assistants as part of the review process; to applicant institutions/grantees to provide or obtain data regarding the proposal review process, award decisions, or the administration of awards; to government contractors, experts, volunteers and researchers and educators as necessary to complete assigned work; to other government agencies needing information as part of the review process or in order to coordinate programs; and to another Federal agency, court or party in a court or Federal administrative proceeding if the government is a party. Information about Principal Investigators may be added to the Reviewer file and used to select potential candidates to serve as peer reviewers or advisory committee members. See Systems of Records, NSF-50, "Principal Investigator/Proposal File and Associated Records," 63 Federal Register 267 (January 5, 1998), and NSF-51, "Reviewer/Proposal File and Associated Records," 63 Federal Register 268 (January 5, 1998). Submission of the information is voluntary. Failure to provide full and complete information, however, may reduce the possibility of receiving an award.

Public reporting burden for this collection of information is estimated to average 120 hours per response, including the time for reviewing instructions. Send comments regarding this burden estimate and any other aspect of this collection of information, including suggestions for reducing this burden, to: Suzanne Plimpton, Reports Clearance Officer, Division of Administrative Services, National Science Foundation; Arlington, VA 22230.

YEAR 2000 REMINDER

In accordance with Important Notice No. 120 dated June 27, 1997, Subject: Year 2000 Computer Problem, NSF awardees are reminded of their responsibility to take appropriate actions to ensure that the NSF activity being supported is not adversely affected by the Year 2000 problem. Potentially affected items include: computer systems, databases, and equipment. The National Science Foundation should be notified if an awardee concludes that the Year 2000 will have a significant impact on its ability to carry out an NSF funded activity. Information concerning Year 2000 activities can be found on the NSF web site at http://www.nsf.gov/oirm/y2k/start.htm.